

[0053] In some example embodiments a method comprises determining to send at least one reset signal comprising instructions to reset a timer at a battery pack, and/or determining to send at least one enable signal comprising instructions to enable the timer at the battery pack, and/or wherein determining to send the reset signal or the enable signal comprises determining whether the battery pack supports an extended current mode or a normal current mode, and wherein the enable signal or the reset signal is sent if the battery pack supports the extended current mode.

[0054] Some of the embodiments disclosed herein may be implemented in software, hardware, application logic, or a combination of software, hardware, and application logic. The software, application logic, and/or hardware may reside in memory 40, the control apparatus 20, protection integrated circuit 224, operating system central processing unit 240, or electronic components disclosed herein, for example. In some example embodiment, the application logic, software or an instruction set is maintained on any one of various conventional computer-readable media. In the context of this document, a “computer-readable medium” may be any non-transitory media that can contain, store, communicate, propagate or transport the instructions for use by or in connection with an instruction execution system, apparatus, or device, such as a computer or data processor circuitry, with examples depicted at FIG. 1. A computer-readable medium may comprise a non-transitory computer-readable storage medium that may be any media that can contain or store the instructions for use by or in connection with an instruction execution system, apparatus, or device, such as a computer. Furthermore, some of the embodiments disclosed herein include computer programs configured to cause methods as disclosed herein (see, for example, the process of FIG. 4 and/or the like).

[0055] The subject matter described herein may be embodied in systems, apparatus, methods, and/or articles depending on the desired configuration. For example, the systems, apparatus, methods, and/or articles described herein can be implemented using one or more of the following: electronic components such as transistors, inductors, capacitors, resistors, and the like, a processor executing program code, an application-specific integrated circuit (ASIC), a digital signal processor (DSP), an embedded processor, a field programmable gate array (FPGA), and/or combinations thereof. These various example embodiments may include implementations in one or more computer programs that are executable and/or interpretable on a programmable system including at least one programmable processor, which may be special or general purpose, coupled to receive data and instructions from, and to transmit data and instructions to, a storage system, at least one input device, and at least one output device. These computer programs (also known as programs, software, software applications, applications, components, program code, or code) include machine instructions for a programmable processor, and may be implemented in a high-level procedural and/or object-oriented programming language, and/or in assembly/machine language. As used herein, the term “machine-readable medium” refers to any computer program product, computer-readable medium, computer-readable storage medium, apparatus and/or device (for example, magnetic discs, optical disks, memory, Programmable Logic Devices (PLDs)) used to provide machine instructions and/or data to a programmable processor, including a machine-readable medium that receives machine instructions. Similarly,

systems are also described herein that may include a processor and a memory coupled to the processor. The memory may include one or more programs that cause the processor to perform one or more of the operations described herein.

[0056] Although some of the examples described herein refer to the use of specific technologies, such as LTE, WiFi, and the like, the subject matter described herein is not limited to those technologies, and, as such, can be used with other radio technologies as well.

[0057] Although a few variations have been described in detail above, other modifications or additions are possible. In particular, further features and/or variations may be provided in addition to those set forth herein. Moreover, the example embodiments described above may be directed to various combinations and subcombinations of the disclosed features and/or combinations and subcombinations of several further features disclosed above. In addition, the logic flow depicted in the accompanying figures and/or described herein does not require the particular order shown, or sequential order, to achieve desirable results. Other embodiments may be within the scope of the following claims.

1-26. (canceled)

27. A method comprising:

disabling a timer, when a current drawn from a battery is one of below and equal to a lower current threshold, wherein the disabled timer allows the battery to remain connected;

enabling the timer, when the current drawn from the battery is greater than the lower current threshold and less than an extended current threshold, wherein the enabled timer allows the battery to remain connected until the timer expires; and

disconnecting the battery, when the timer expires or the current drawn from the battery exceeds the extended current threshold.

28. The method of claim 27 further comprising:

enabling the timer, when the current drawn from the battery is greater than the lower current threshold and less than a normal current threshold, wherein the enabled timer allows the battery to remain connected until the timer expires; and

disconnecting the battery, when the timer expires or the current drawn from the battery exceeds the normal current threshold.

29. The method of claim 27 further comprising resetting, based on a first received indication, the timer to prevent the expiration of the timer.

30. The method of claim 29, wherein the first received indication represents use of an apparatus drawing current from the battery.

31. The method of claim 27, further comprising disabling the timer based on a second received indication.

32. An apparatus comprising:

at least one processor; and

at least one memory including computer program code, the at least one processor, the at least one memory, and the computer program code configured to cause the apparatus to at least:

disable a timer, when a current drawn from a battery is one of below and equal to a lower current threshold, wherein the disabled timer allows the battery to remain connected;

enable the timer, when the current drawn from the battery is greater than the lower current threshold and less than